

## **ABSTRACT**

This invention relates to a 3-dimensional font-engine for redrawing characters onto a  
5 display screen to represent characters on a page. A user may continuously change  
orientation with respect to that page in 3-dimensional space and the characters themselves  
are rotated and redrawn to the display means after each change of orientation. The text  
layout on the page is not considered as a single image but instead the basic font information  
in terms of characteristic control points defining the curves of the characters are rotated prior  
10 to the image being redrawn to the display screen.